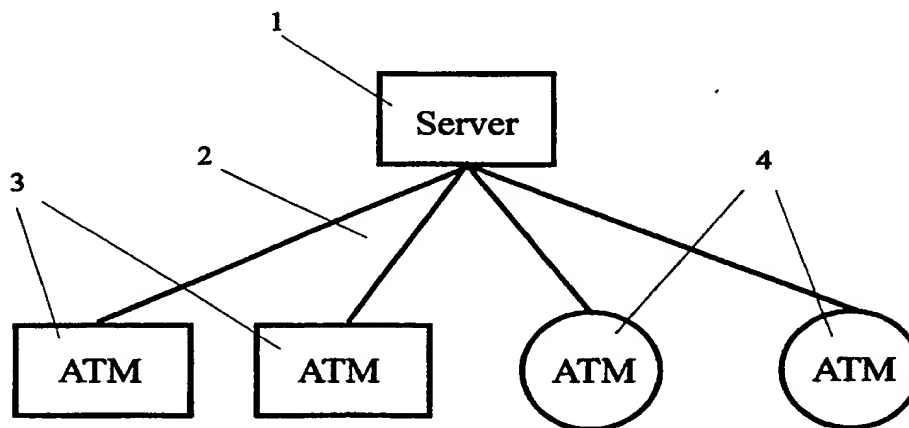




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : G07F 19/00, G06F 17/60, G07F 7/10	A3	(11) International Publication Number: WO 99/49431 (43) International Publication Date: 30 September 1999 (30.09.99)
(21) International Application Number: PCT/GB99/00927 (22) International Filing Date: 24 March 1999 (24.03.99) (30) Priority Data: 9806843.0 24 March 1998 (24.03.98) GB (71) Applicant (for all designated States except US): KORALA ASSOCIATES LIMITED [GB/GB]; John Cotton Building, Sunnyside, Edinburgh EH7 5RA (GB). (72) Inventor; and (75) Inventor/Applicant (for US only): KORALA, Aravinda [FR/GB]; KAL, John Cotton Building, Sunnyside, Edinburgh EH7 5RA (GB). (74) Agent: KENNEDY & CO.; Station House, 34 St. Enoch Square, Glasgow G1 4DF (GB).		(81) Designated States: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i> (88) Date of publication of the international search report: 25 November 1999 (25.11.99)

(54) Title: APPARATUS AND METHOD FOR PROVIDING TRANSACTION SERVICES



(57) Abstract

Apparatus and method for providing transaction services, in particular a computer-based transaction machine, such as an ATM, and a method for providing transaction services using said transaction machine. One or more software applications interact with middleware software through functional interfaces that are hardware independent but provide functionality which is implemented in a manner adapted to the capabilities of the particular hardware implementation. Objects provided for standard transaction functions are independent of the interface between the user and the transaction machine, said interface being customisable. The resulting transaction machines are typically combined into networks and these networks may readily be combined to form an Extranet.

FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AL	Albania	ES	Spain	LS	Lesotho	SI	Slovenia
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AT	Austria	FR	France	LU	Luxembourg	SN	Senegal
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DK	Denmark	LK	Sri Lanka	SE	Sweden		
EE	Estonia	LR	Liberia	SG	Singapore		

INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 99/00927

A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 G07F19/00 G06F17/60 G07F7/10

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 G07F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 97 45796 A (BARCELOU) 4 December 1997 (1997-12-04) page 2, line 6 - line 18 page 6, line 22 -page 7, line 6 page 7, line 24 -page 8, line 5; figures ---	1,2,19, 24,29, 30,47,52
A	WO 97 10562 A (CYBERMARK, L.L.C.) 20 March 1997 (1997-03-20) page 6, line 2 - line 4 page 7, line 11 - line 18; figures 1,2,4 ---	1,2,29, 30
A	WO 97 05582 A (KEYCORP LIMITED) 13 February 1997 (1997-02-13) page 5, last paragraph -page 6, line 8 page 7, line 22 -page 9, line 9; figures 5,6,8,11 ----- -/--	1,29



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

4 October 1999

Date of mailing of the international search report

12/10/1999

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Neville, D

PCT/GB 99/00927

Form PCT/ISA/210 (continuation of second sheet) (July 1992)

INTERNATIONAL SEARCH REPORT

Information on patent family members

Internat'l Application No

PCT/GB 99/00927

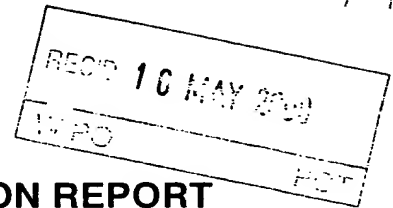
Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9745796 A	04-12-1997	AU 3283897 A NZ 333112 A	05-01-1998 28-01-1999
WO 9710562 A	20-03-1997	AU 7019796 A	01-04-1997
WO 9705582 A	13-02-1997	AU 6606296 A CA 2228291 A EP 0842503 A NZ 313557 A	26-02-1997 13-02-1997 20-05-1998 28-10-1998
US 5739512 A	14-04-1998	NONE	
US 5710887 A	20-01-1998	NONE	
WO 9741541 A	06-11-1997	AU 2811897 A	19-11-1997

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)





Applicant's or agent's file reference koa.130.pct	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/GB99/00927	International filing date (day/month/year) 24/03/1999	Priority date (day/month/year) 24/03/1998
International Patent Classification (IPC) or national classification and IPC G07F19/00		
Applicant KORALA ASSOCIATES LIMITED et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets, including this cover sheet.
- ☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).
- These annexes consist of a total of 3 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☒ Certain defects in the international application
- VIII ☒ Certain observations on the international application

Date of submission of the demand 18/10/1999	Date of completion of this report 12.05.00
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer Burnes, K  Telephone No. +49 89 2399 2393

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/GB99/00927

I. Basis of the report

1. This report has been drawn on the basis of (*substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.*):

Description, pages:

1-34 as originally filed

Claims, No.:

4 (part), 5-23, 34-59 as originally filed

1-3, 4 (part), 24-33 as received on 09/03/2000 with letter of 07/03/2000

Drawings, sheets:

1/2, 2/2 as originally filed

2. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

3. ☒ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

see separate sheet

4. Additional observations, if necessary:

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/GB99/00927

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	2-28,30-59
	No:	Claims	1,29
Inventive step (IS)	Yes:	Claims	
	No:	Claims	1-59
Industrial applicability (IA)	Yes:	Claims	1-59
	No:	Claims	

2. Citations and explanations

see separate sheet

VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

Section I

Original basis of the amendments

1. The amended independent method claim 1 sets out from claim 1 as filed and has been clarified on the basis of the description:
 - transaction devices are referred to throughout the specification (see e.g. the list provided on pages 18/19);
 - a single programming interface serving a specific application is disclosed at page 14, lines 24 to 27.
2. On the other hand, the feature that "the programming interface does not depend on the capabilities of the transaction devices" cannot be gathered as a general teaching from the application as filed. In this respect, the amendment extends the technical teaching of the application, contrary to the requirements of Article 34(2)(b) PCT.

Section V

Industrial applicability, novelty, and inventive step

3. Industrial applicability of the claimed methods and machines is evident. Hence, the requirement of Article 33(4) PCT is met.
4. Seeing the broad interpretation given to the terms "transaction" (e.g. on page 1, lines 12 to 22) and "transaction device" (see pages 18/19), claim 1 covers a method of running a conventional computer and conventional transaction devices (e.g. peripheral input/output devices) by means of a conventional operating system (e.g. Microsoft "Windows") comprising a uniform middleware software (e.g. the system control dialogue interface) to select appropriate drivers for interaction with various application programs and transaction devices.

Hence, claim 1 does not meet the requirements of Article 33(1)(2) in conjunction with Rule 64.1 PCT, because its subject-matter is not new.

The independent machine claim 29 is based on the same concept as claim 1 and is, therefore, assessed in the same way.

5. The dependent claims do not appear to contain any additional feature novel and non-obvious over the available prior art and/or the skilled person's average knowledge in the art. Rather, the features in the dependent claims only reflect obvious implementations of obvious functions.

Section VII

Certain defects in the international application

6. In accordance with Rule 6.2b PCT, reference signs in parentheses should have been inserted in the claims to increase their intelligibility (PCT Preliminary Examination Guidelines, Chapter III, 4.11).
7. To meet the requirements of Rule 5.1 (a) (ii) PCT, pertinent prior art documents should have been identified in the introductory portion of the description, and the relevant background art therein should have been briefly indicated.

Section VIII

Certain observations on the international application

8. The last two lines of the independent claims 1 and 29 ("the programming interface does not depend on the capabilities of the transaction devices") define a desideratum rather than clear technical features (method steps; data structures) allowing the object to be achieved, contrary to the requirements of Article 6 PCT (see also PCT Preliminary Examination Guidelines, chapter III, 4.7).
9. The introductory portion of the description should have been harmonised with the amended independent claims, Rule 5.1(a)(ii)(iii) PCT.
10. The general statement in the description at page 34, last paragraph is unclear, and when used to interpret the claims renders these also unclear, contrary to the requirements of Article 6 PCT.

Therefore, said paragraph should have been amended to read: "Further modifications and improvements may be incorporated without departing from the scope of the invention ~~herein intended~~ as defined by the appended claims."

PATENT COOPERATION TREATY

09/646796

From the
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

PCT

PR/ALN

To:

KENNEDY CO.
Floor 4, Queens House
29 ST.Vincent Place
GLASGOW G1 2DT
GRANDE BRETAGNENOTIFICATION OF TRANSMITTAL OF
THE INTERNATIONAL PRELIMINARY
EXAMINATION REPORT

(PCT Rule 71.1)

Date of mailing
(day/month/year)

12.05.00

Applicant's or agent's file reference
koa.130.pct

IMPORTANT NOTIFICATION

International application No.
PCT/GB99/00927International filing date (day/month/year)
24/03/1999Priority date (day/month/year)
24/03/1998

Applicant

KORALA ASSOCIATES LIMITED et al.

1. The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
2. A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
3. Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.

4. REMINDER

The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).

Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.

For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/

European Patent Office
D-80298 Munich
Tel. +49 89 2399 - 0 Tx: 523656 epmu d
Fax: +49 89 2399 - 4465

Authorized officer

Garvey, R

Tel.+49 89 2399-2271



PATENT COOPERATION TREATY 09 / 646796

WO 99/49431
PCT/GB99/00927

From the INTERNATIONAL BUREAU

PCT

NOTICE INFORMING THE APPLICANT OF THE COMMUNICATION OF THE INTERNATIONAL APPLICATION TO THE DESIGNATED OFFICES

(PCT Rule 47.1(c), first sentence)

To:

KENNEDY & CO.
Station House
34 St. Enoch Square
Glasgow G1 4DF
ROYAUME-UNI

RECEIVED

12 OCT 1999

Date of mailing (day/month/year)

30 September 1999 (30.09.99)

Applicant's or agent's file reference

koa.130.pct

IMPORTANT NOTICE

International application No.

PCT/GB99/00927

International filing date (day/month/year)

24 March 1999 (24.03.99)

Priority date (day/month/year)

24 March 1998 (24.03.98)

Applicant

KORALA ASSOCIATES LIMITED et al

1. Notice is hereby given that the International Bureau has communicated, as provided in Article 20, the international application to the following designated Offices on the date indicated above as the date of mailing of this Notice:
AU,CN,EP,IL,JP,KP,KR,US

In accordance with Rule 47.1(c), third sentence, those Offices will accept the present Notice as conclusive evidence that the communication of the international application has duly taken place on the date of mailing indicated above and no copy of the international application is required to be furnished by the applicant to the designated Office(s).

2. The following designated Offices have waived the requirement for such a communication at this time:
AE,AL,AM,AP,AT,AZ,BA,BB,BG,BR,BY,CA,CH,CU,CZ,DE,DK,EA,EE,ES,FI,GB,GD,GE,GH,GM,HR,HU,ID,IN,IS,KE,KG,KZ,LC,LK,LR,LS,LT,LU,LV,MD,MG,MK,MN,MW,MX,NO,NZ,OA,PL,PT,RO,RU,SD,SE,SG,SI,SK,SL,TJ,TM,TR,TT,UA,UG,UZ,VN,YU,ZA,ZW
The communication will be made to those Offices only upon their request. Furthermore, those Offices do not require the applicant to furnish a copy of the international application (Rule 49.1(a-bis)).

3. Enclosed with this Notice is a copy of the international application as published by the International Bureau on 30 September 1999 (30.09.99) under No. WO 99/49431

REMINDER REGARDING CHAPTER II (Article 31(2)(a) and Rule 54.2)

If the applicant wishes to postpone entry into the national phase until 30 months (or later in some Offices) from the priority date, a demand for international preliminary examination must be filed with the competent International Preliminary Examining Authority before the expiration of 19 months from the priority date.

It is the applicant's sole responsibility to monitor the 19-month time limit.

Note that only an applicant who is a national or resident of a PCT Contracting State which is bound by Chapter II has the right to file a demand for international preliminary examination.

REMINDER REGARDING ENTRY INTO THE NATIONAL PHASE (Article 22 or 39(1))

If the applicant wishes to proceed with the international application in the national phase, he must, within 20 months or 30 months, or later in some Offices, perform the acts referred to therein before each designated or elected Office.

For further important information on the time limits and acts to be performed for entering the national phase, see the Annex to Form PCT/IB/301 (Notification of Receipt of Record Copy) and Volume II of the PCT Applicant's Guide.

The International Bureau of WIPO
34, chemin des Colombettes
1211 Geneva 20, Switzerland

Authorized officer

J. Zahra

Facsimile No. (41-22) 740.14.35

Telephone No. (41-22) 338.83.38

2859035



PCT

NOTIFICATION OF THE RECORDING
OF A CHANGE

(PCT Rule 92bis.1 and
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

KENNEDY & CO.
Floor 4, Queen's House
29 St Vincent Place
Glasgow G2 4DT
ROYAUME-UNI

Date of mailing (day/month/year) 20 October 1999 (20.10.99)	IMPORTANT NOTIFICATION
Applicant's or agent's file reference koa.130.pct	
International application No. PCT/GB99/00927	International filing date (day/month/year) 24 March 1999 (24.03.99)

1. The following indications appeared on record concerning: <input type="checkbox"/> the applicant <input type="checkbox"/> the inventor <input checked="" type="checkbox"/> the agent <input type="checkbox"/> the common representative		
Name and Address KENNEDY & CO. Station House 34 St. Enoch Square Glasgow G1 4DF United Kingdom	State of Nationality	State of Residence
	Telephone No. 0141 226 6826	
	Facsimile No. 0141 226 6838	
	Teleprinter No.	
2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning: <input type="checkbox"/> the person <input type="checkbox"/> the name <input checked="" type="checkbox"/> the address <input type="checkbox"/> the nationality <input type="checkbox"/> the residence		
Name and Address KENNEDY & CO. Floor 4, Queen's House 29 St Vincent Place Glasgow G2 4DT United Kingdom	State of Nationality	State of Residence
	Telephone No. 0141 226 6826	
	Facsimile No. 0141 226 6838	
	Teleprinter No.	
3. Further observations, if necessary:		
4. A copy of this notification has been sent to: <input checked="" type="checkbox"/> the receiving Office <input checked="" type="checkbox"/> the designated Offices concerned <input type="checkbox"/> the International Searching Authority <input type="checkbox"/> the elected Offices concerned <input type="checkbox"/> the International Preliminary Examining Authority <input type="checkbox"/> other:		

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer Jocelyne Rey-Millet Telephone No.: (41-22) 338.83.38
---	---

PATENT COOPERATION TREATY

PCT

NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

Assistant Commissioner for Patents
 United States Patent and Trademark
 Office
 Box PCT
 Washington, D.C.20231
 ÉTATS-UNIS D'AMÉRIQUE

in its capacity as elected Office

Date of mailing (day/month/year)

17 November 1999 (17.11.99)

International application No.

PCT/GB99/00927

Applicant's or agent's file reference

koa.130.pct

International filing date (day/month/year)

24 March 1999 (24.03.99)

Priority date (day/month/year)

24 March 1998 (24.03.98)

Applicant

KORALA, Aravinda

1. The designated Office is hereby notified of its election made:



in the demand filed with the International Preliminary Examining Authority on:

18 October 1999 (18.10.99)



in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was

was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO
 34, chemin des Colombettes
 1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.35

Authorized officer

C. Carrié

Telephone No.: (41-22) 338.83.38

PATENT COOPERATION TREATY

PCT

09/646796

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference koa.130.pct	FOR FURTHER ACTION see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/GB 99/ 00927	International filing date (day/month/year) 24/03/1999	(Earliest) Priority Date (day/month/year) 24/03/1998
Applicant KORALA ASSOCIATES LIMITED et al.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐ **Certain claims were found unsearchable** (See Box I).

3. ☐ **Unity of invention is lacking** (see Box II).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.

☒ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

2

☐ None of the figures.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/GB 99/00927

A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 G07F19/00 G06F17/60 G07F7/10

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 G07F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 97 45796 A (BARCELOU) 4 December 1997 (1997-12-04) page 2, line 6 - line 18 page 6, line 22 -page 7, line 6 page 7, line 24 -page 8, line 5; figures ---	1,2,19, 24,29, 30,47,52
A	WO 97 10562 A (CYBERMARK, L.L.C.) 20 March 1997 (1997-03-20) page 6, line 2 - line 4 page 7, line 11 - line 18; figures 1,2,4 ---	1,2,29, 30
A	WO 97 05582 A (KEYCORP LIMITED) 13 February 1997 (1997-02-13) page 5, last paragraph -page 6, line 8 page 7, line 22 -page 9, line 9; figures 5,6,8,11 --- -/--	1,29

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

° Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

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Date of the actual completion of the international search

4 October 1999

Date of mailing of the international search report

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INTERNATIONAL SEARCH REPORT

International Application No

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, A	US 5 739 512 A (TOGNAZZINI) 14 April 1998 (1998-04-14) column 5, line 48 - line 67; figure 3 ---	1, 29
A	US 5 710 887 A (CHELLIAH ET AL.) 20 January 1998 (1998-01-20) column 8, line 51 - line 64 ---	1, 29
A	WO 97 41541 A (VERIFONE) 6 November 1997 (1997-11-06) page 23, last paragraph -page 24, line 17 -----	1, 3, 22, 23, 29, 31, 50, 51, 57, 58

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB 99/00927

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
WO 9745796	A	04-12-1997	AU	3283897 A	05-01-1998
			NZ	333112 A	28-01-1999
WO 9710562	A	20-03-1997	AU	7019796 A	01-04-1997
WO 9705582	A	13-02-1997	AU	6606296 A	26-02-1997
			CA	2228291 A	13-02-1997
			EP	0842503 A	20-05-1998
			NZ	313557 A	28-10-1998
US 5739512	A	14-04-1998	NONE		
US 5710887	A	20-01-1998	NONE		
WO 9741541	A	06-11-1997	AU	2811897 A	19-11-1997